

### **REMARKS**

The Applicant's representative has reviewed and considered the Office Action mailed on May 21, 2002, and the reference cited therewith. Claim 21 has been amended, no claims are cancelled and no claims are added; as a result, claims 21-37 are now pending in the Application.

### **Rejection Under 35 U.S.C. § 102**

Claims 21, 23, 25, 27, 29-31, 33, and 35-36 have been rejected under 35 USC § 102(e) as being anticipated by Shinohara (U.S. Patent No. 5,880,735, hereinafter "Shinohara"). The Applicant does not admit that Shinohara is prior art, and reserves the right to swear behind this reference in the future. In addition, the MPEP requires that "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131. Because the Applicant asserts that the Office has not shown that Shinohara discloses the identical invention as claimed, the Applicant respectfully traverses this rejection of the claims, and request reconsideration according to the following commentary.

Shinohara takes a two-step approach to transparency conversion. First, the transparency of each vertex of a polygon is corrected using a Z component of a vertex normal unit vector. Second, the transparency of each pixel is determined using the corrected transparency of the enclosing vertices. See Shinohara, Col. 3, line 55 - Col. 4, line 15. This approach is strikingly different than that taken by the Applicant. The difference is emphasized in Shinohara's own words "... the transparency of each pixel is complemented by the transparency of each vertex. Then ever [sic] in one surface, the transparency of each pixel may become different from each other." Shinohara, Col. 10, lines 36-39.

In Shinohara, the normal vector of a vertex is found by taking the average of each normal vector of the polygons adjoining the vertex. See Shinohara, Col. 2, lines 2-37, and vectors at vertices "a", "b", etc. in FIG. 8. Thus, Shinohara does not disclose the element of " ... an angle) (of incidence at the object *surface* modulating the transparency of an image ..." as shown in the Application (e.g., FIG. 1, elements 140, 220, and 380), and claimed by the Applicant in independent claims 21, 25, 29, and 35 (from which claims 23, 27, 30-31, 33, and 36 depend).

While asserting the existence of such an element in the Office Action (see Office Action, "Claim Rejections - 35 USC § 102", pg. 3, where reference is made to "... identifying a vector normal to a viewing surface ... the vector creating an angle of incidence at the object surface; and modulating the transparency of an image of the object as a function of the angle of incidence at the object surface", it should be noted that Shinohara explicitly states that transparency changes are made using vertex normal vectors, not surface normal vectors, as claimed by the Applicant. To quote Shinohara "... as the transparency of each pixel enclosed by those vertices is complemented by the transparency of the vertices, the various transparency can be provided [sic] to each pixel in one surface." Shinohara, Col. 10, lines 47-50. Since the Applicant believes that no "angle of incidence at the object surface" exists within the bounds of Shinohara, claims 21, 25, 29, and 35 (as well as dependent claims 23, 27, 30-31, 33, and 36) should be allowable over this reference.

The following are additional assertions made in the Office Action concerning Shinohara, with corresponding factual corrections:

Claim 21: Assertion: Shinohara teaches ... modulating (... element program executes corresponds to modulating because a computer program consisting of modules) the transparency ... . Fact: Shinohara only discloses transparency correction based on vertex normal vectors. The existence of program modules does not affect the activity of "modulating", which has been specifically defined by the Applicant as "varying the transparency over a range." See Application, page 2, lines 24-25.

Claims 23, 27, 33, and 36: Assertion: Shinohara discloses a linear function. Fact: Shinohara only discloses transparency correction based on *vertex* normal vectors. Thus, it is impossible for Shinohara to teach the use of a linear function as applied to a *surface* incidence angle.

Claims 30-31: Assertion: Shinohara discloses a storage device comprising a memory ... Shinohara teaches a frame buffer. Fact: Shinohara indeed does disclose the existence of a frame buffer. However, the Applicant claims "a computer-readable medium" from which a computer program can be executed. A frame buffer typically is used as a repository for raw image data, and not for program execution. The Applicant was unable to find any instance where Shinohara teaches program execution from instructions stored in the frame buffer element 14.

Therefore, since Shinohara does not disclose "... an angle of incidence at the *object surface* modulating the transparency of an image ..." as claimed by the Applicant, reconsideration and withdrawal of the rejection under § 102 is respectfully requested.

**Allowable Subject Matter**

Claim 20 stands allowed. Claims 22, 24, 26, 28, 32, 34, and 37 have been deemed allowable if rewritten in independent form.

**CONCLUSION**

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicant's attorney Mark Muller at 210/308-5677 or the undersigned to facilitate prosecution of this application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 24 day of July, 2002.

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